

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1

of 5

**Complete if Known**

Application Number	
Filing Date	Even Date Herewith
First Named Inventor	Beka SOLOMON
Group Art Unit	1632
Examiner Name	
Attorney Docket Number	SOLOMON=2A.1

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
86	AA	5,688,651		Solomon	11-18-1997	
88	AB	5,811,093		Merril et al	09-22-1998	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Number			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD- YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>3</sup>
		Office <sup>3</sup>	Number	Kind Code <sup>5</sup> (if known)				
85	AC	EP	0 526 511	B1	Molecular Rx Inc.	03-26-1991		
86	AD	WO	92/07077	A1	Perham et al	04-30-1992		
86	AE	WQ	99/27944	A1	Athena Neurosciences, Inc.	06-10-1999		

**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T <sup>2</sup>
86	AF	BARBAS et al, "Assembly of combinatorial antibody libraries on phage surfaces: The gene III site", <u>Proc Natl Acad Sci USA</u> 88:7978-7982 (1991)	
86	AG	BARBAS et al, "Semisynthetic combinatorial antibody libraries: a chemical solution to the diversity problem", <u>Proc Natl Acad Sci USA</u> 89:4457-4461 (1992)	
86	AH	BARBAS et al, "Recombinant human Fab fragments neutralize human type 1 immunodeficiency virus <i>in vitro</i> ", <u>Proc Natl Acad Sci USA</u> 89:9339-9343 (1992)	

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12-5-05

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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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
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**Complete if Known**

Application Number	
Filing Date	Even Date Herewith
First Named Inventor	Beka SOLOMON
Group Art Unit	1632
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	AI	BARBAS et al, "Human monoclonal Fab fragments derived from a combinatorial library bind to respiratory syncytial virus F glycoprotein and neutralize infectivity", <u>Proc Natl Acad Sci USA</u> 89:10164-10168 (1992)	
	AJ	BARINAGA M, "An Immunization Against Alzheimer's?", <u>Science</u> 285:175-176 (1999)	
	AK	BREITLING et al, "A surface expression vector for antibody screening", <u>Gene</u> 104:147-153 (1991)	
	AL	BURTION et al, "A large array of human monoclonal antibodies to type 1 human immunodeficiency virus from combinatorial libraries of asymptomatic seropositive individuals", <u>Proc Natl Acad Sci USA</u> 88:10134-10137 (1991)	
	AM	CESARENI et al, "Minireview Peptides display on filamentous phage capsids a new powerful tool to study protein ligand interaction", <u>FEBS Letters</u> 307:66-70 (1992)	
	AN	CHANG et al, "Expression of antibody Fab domains on bacteriophage surfaces potential use for antibody selection", <u>J Immunol</u> 147:3610-3614 (1991)	
	AO	CHECK E, "Nerve inflammation halts trial for Alzheimer's Drug", <u>Nature</u> 415:462 (2002)	
	AP	CLACKSON et al, "Letters to nature making antibody fragments using phage display libraries", <u>Nature</u> 352:624-628 (1991)	
	AQ	COSME J, "Immunization reverses memory deficits without reducing brain AB burden in Alzheimer's disease model" (2002)	
	AR	DELMASTRO, et al, "Immunogenicity of filamentous phage displaying peptide mimotopes after oral administration", <u>Vaccine</u> 15:1276-1285 (1997)	
	AS	DRAGHIA et al, "Gene delivery into the central nervous system by nasal instillation in rats", <u>Gene Ther</u> 2(6):418-423 (1995)	
	AT	ECK et al, "Gene-Based Therapy", in Goodman & Gilman's <u>The Pharmacological Basis of Therapeutics</u> , 9 <sup>th</sup> Ed., McGraw-Hill (1996), pp. 77-101	
	AU	FRENKEL et al, "N-terminal EFRH sequence of Alzheimer's $\beta$ -amyloid peptide represents the epitope of its anti-aggregating antibodies", <u>J Neuroimmunol</u> 88:85-90 (1998)	



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		First Named Inventor	Beka SOLOMON
		Group Art Unit	1632
		Examiner Name	
Sheet 3	of 5	Attorney Docket Number	SOLOMON=2A.1

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	AV	GARRARD et al, "Fab assembly and enrichment in a monovalent phage display system", <u>Biotechnology</u> , 9:1373-1377 (1991)	
	AW	GLASER et al, "Antibody engineering by codon-based mutagenesis in a filamentous phage vector system", <u>J Immunol</u> 149:3903-3913 (1992)	
	AX	GOESSLING et al, "Enhanced degradation of the ferritin repressor protein during induction of ferritin messenger RNA translation", <u>Science</u> 256:670 (1992)	
	AY	GRAM et al, "In vitro selection and affinity maturation of antibodies from a naïve combinatorial immunoglobulin library", <u>Proc Natl Acad Sci USA</u> 89:3576-3580 (1992)	
	AZ	HANAN et al, "Inhibitory effect of monoclonal antibodies on Alzheimer's $\beta$ -amyloid peptide aggregation", <u>Int J Exp Clin Invest</u> 3:130-133 (1996)	
	BA	HARDY et al, "The amyloid hypothesis of Alzheimer's disease: progress and problems on the road to therapeutics", <u>Science</u> 297(5580):353-356 (2002)	
	BB	HAWKINS et al, "Selection of phage antibodies by binding affinity mimicking affinity maturation", <u>J Mol Biol</u> 226:889-896 (1992)	
	BC	HOOGENBOOM et al, "Multi-subunit proteins on the surface of filamentous phage: methodologies for displaying antibody (Fab) heavy and light chains", <u>Nucleic Acids Res</u> 19:4133-4137 (1991)	
	BD	HOOGENBOOM et al, "Building antibodies from their genes", <u>Immunol Rev</u> 130-41-68 (1992)	
	BE	HUSE et al, "Application of a filamentous phage pVIII fusion protein system suitable for efficient production screening, and mutagenesis of F(ab) antibody fragments", <u>J Immunol</u> (1992)	
	BF	JANUS et al, "A $\beta$ peptide immunization reduces behavioral impairment and plaques in a model of Alzheimer's disease", <u>Nature</u> 408(6815):979-982 (2000)	
	BG	JONES et al, "Display of antibody chains on filamentous bacteriophage", <u>Methods Mol Biol</u> 80:449-459	

Examiner Signature		Date Considered	12-5-05
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of

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Application Number	
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First Named Inventor	Beka SOLOMON
Group Art Unit	1632
Examiner Name	
Attorney Docket Number	SOLOMON=2A.1

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80	BH	KANG et al, "Linkage of recognition and replication functions by assembling combinatorial antibody Fab libraries along phage surfaces", <u>Proc Natl Acad Sci USA</u> 88:4363-4366 (1991)	
	BI	KANG et al, "Antibody redesign by chain shuffling from random combinatorial immunoglobulin libraries", <u>Proc Natl Acad Sci USA</u> 88:11120-11123 (1991)	
	BJ	LERNER et al, "Antibodies without immunization", <u>Science</u> 258:1313-1314 (1992)	
	BK	MALIK, et al, "Factors limiting display of foreign peptides on the major coat protein of filamentous bacteriophage capsids and a potential role for leader peptidase", <u>FEBS Letters</u> , 436:263-266 (1998)	
	BL	MALIK, et al, "Role of capsid structure and membrane protein processing in determining the size and copy number of peptides displayed on the major coat protein of filamentous bacteriophage", <u>J Mol Biol</u> , 260:9-21 (1996)	
	BM	MARKS et al, "By-passing immunization human antibodies from V-gene libraries displayed on phage", <u>J Mol Biol</u> 222:581-597 (1991)	
	BN	MARKS et al, "Molecular evolution of proteins on filamentous phage", <u>J Biol Chem</u> 267:16007-16010 (1992)	
	BO	McCAFFERTY et al, "Letters to nature phage antibodies: filamentous phage displaying antibody variable domains", <u>Nature</u> 348:552-554 (1990)	
	BP	MEOLA et al, "Immunogenicity of filamentous phage displaying peptidemimotopes after oral administration", <u>Vaccine</u> 15:1276-1285 (1997)	
	BQ	MORGAN et al, "A $\beta$ peptide vaccination prevents memory loss in an animal model of Alzheimer's disease", <u>Nature</u> 408(6815):982-985 (2000)	
	BR	MOTTI et al, "Recognition by human sera and immunogenicity of HbsAg mimotopes selected from an M13 phage display library", <u>Gene</u> 146:191-198 (1994)	
	BS	NICHOLLS P, "Work on weapons adds to public distrust of science", <u>Nature</u> 416:677 (2002)	

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		First Named Inventor	Beka SOLOMON
		Group Art Unit	1632
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Sheet 5	of 5	Attorney Docket Number	SOLOMON=2A.1

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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80	BT	RENAULD-MONGENIE et al, "Induction of mucosal immune responses against a heterologous antigen fused to filamentous hemagglutinin after intranasal immunization with recombinant <i>Bordetella pertussis</i> ", <u>Proc Natl Acad Sci USA</u> 93:7944-7949 (1996)	
	BU	SCHENK et al, "Immunization with amyloid- $\beta$ attenuates Alzheimer-disease-like pathology in the PDDAPP mouse", <u>Nature</u> 400:173-177 (1999)	
	BV	SCOTT et al, "Searching for Peptide Ligands with an Epitope Library," <u>Science</u> 249:386-390	
	BW	SMITH, "Surface presentation of protein epitopes using bacteriophage expression systems", <u>Cur Opin Biotechnol</u> 2:668-673 (1991)	
	BX	SOLOMON et al, "Monoclonal antibodies inhibit <i>in vitro</i> fibrillar aggregation of the Alzheimer $\beta$ -amyloid peptide", <u>Proc Natl Acad Sci USA</u> 93:452-455 (1996)	
	BY	SOLOMON et al, "Disaggregation of Alzheimer $\beta$ -amyloid by site-directed mAb", <u>Proc Natl Acad Sci USA</u> 94:4109-4112 (1997)	
	BZ	SOMERVILLE et al, "Immunodetection of PrP <sup>Sc</sup> in spleens of some scrapie-infected sheep but not BSE-infected cows", <u>J Gen Virol</u> 7:2389-2396 (1997)	
	CA	VERMA et al, "Gene therapy - promises, problems and prospects", <u>Nature</u> 389:239-42 (1997)	
	CB	WETZEL, "Commentary learning from the immune system laboratory methods for creating and refining molecular diversity in polypeptides", <u>Protein Eng</u> 4:371-374 (1991)	
	CC	WILLIS A, "Immunological properties of foreign peptides in multiple display on a filamentous bacteriophage", <u>Gene</u> 128(1):79-83 91993)	
	CD	ZEBEDEE et al, "Human combinatorial antibody libraries to hepatitis B surface antigen", <u>Proc Natl Acad Sci USA</u> 89:3175-3179 (1992)	
80	CE	"Test of Alzheimer's Vaccine In Mice Shows Promise", <u>CNN Interactive</u> (July 7, 1999)	

Examiner Signature		Date Considered	12-5-95
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Sheet 1


of 1

Application Number	10/618,856
Filing Date	July 15, 2003
First Named Inventor	Beka SOLOMON
Group Art Unit	1647
Examiner Name	Nichols
Attorney Docket Number	SOLOMON=2A.1


**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	CF	US-2003/148,404	08-07-2003	MICHAELSON	
		US-			
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
	CG	WO 01/15655	03-08-2001	MICHAELSON	claims 1, 23, 44, 45	

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	CH	FRENKEL, et al, "Modulation of Alzheimer's $\beta$ -amyloid neurotoxicity by site directed single-chain antibody", <u>J Neuroimmunol</u> 106:23-31 (2000)	

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